

made to reproduce in cold-blood animals tumor growths by the inoculation of this bacterium but no satisfactory results were obtained. The author believes that although no parasite has been demonstrated for animal tumors the analogy between the new growth in plants and animals suggests that the causative agents are similar.

Fetal Erythroblastosis.—Varying types and grades of edema are not uncommonly observed in the newborn. One type, congenital general edema, although not rare in its occurrence, has not been extensively commented upon. This form of congenital edema is usually seen in premature fetuses in which excessive fluid is found in the tissues of body cavities. This edema also involves the placenta and cord. The liver and spleen are enlarged and show numerous islands of myeloid cells and immature red cells and leukocytes. Various causes have been assigned for this congenital disease. Disturbances in the portal circulation, anomalies of heart, maternal nephritis and metabolic disturbance of the fetus have all been suggested as the active cause leading to this systemic disease. WOOLLEY (*Jour. Lab. and Clin. Med.*, 1916, i, 347) observed these characteristics in a case of congenital edema. The fetus was one of twins. He believed that the anasarca was the expression of the anemia resulting from disturbed production or increased destruction of erythrocytes. The pigmentation of the organs suggests an increased blood destruction. The low oxygen carriage of the impoverished blood diminishes metabolism and with it it is thought an accumulation of acids. The anasarca is, therefore, the expression of a severe grade of anemia. The author offers no suggestion for the origin of the anemia.

Experimental Arthritis in the Rabbit.—There has been much discussion upon the significance of various bacteria isolated from cases of arthritis and although experimental joint lesions have been obtained in animals little agreement is to be found in the interpretation of these results. The joint affections receiving greatest attention have been those associated with rheumatic fever. In this disease one or other of the types of *Streptococcus viridans* has been isolated. In carrying on inoculation experiments with these microorganisms joint lesions may be produced without, however, any degree of constancy which may be controlled. There are factors which appear to have a bearing upon the specific tissue infection which in part is related to the size of the inoculated dose, the virulence of the microorganism and the susceptibility of different tissues. That the latter condition plays an important part has often been suggested but very little experimental evidence has appeared to indicate the truth of the statement. FABER (*Jour. Exper. Med.*, 1915, xxii, 615) has brought forward a very interesting report upon a series of experiments in which the importance of a previous sensitization of tissues, particularly joints, rendering them more susceptible to an active infection and inflammation was shown. In these experiments rabbits were sensitized either by inoculating them intravenously with one or more doses, or by injecting dead cultures of streptococci into a joint. After a varying period of time an intravenous inoculation of the same living microorganisms was given. By the latter method a condition of sensitization was obtained so that it

was possible to cause arthritis in rabbits by intravenous inoculation. The reaction appeared specific in that the joint response could be obtained only by means of the same type of organism used in sensitizing. When animals are treated by the intravenous route alone, localization was best attained after the giving of several doses. This feature the author believes is similar to the recurrences to which the rheumatic patient is liable. This work by Faber is very suggestive and particularly important in drawing our attention to some specific qualities which may be contained within tissues and which are of importance in making those areas more vulnerable.

Heteroplastic Bone and Bone-marrow Formation Associated with Tuberculosis in the Adrenal.—Aberrant islands of bone are not uncommonly met with in a great variety of organs and tissues. The frequency of meeting with heteroplastic bone is in direct proportion to the opportunity of microscopically analyzing tissues which are too frequently superficially diagnosed by the naked eye. In the fibrosed tonsils of elderly individuals bone and cartilage are commonly seen in the thickened capsule. Similarly, bony islands are frequent in the calcified media of the peripheral arteries. Osteoid and true osseous tissue are also encountered in the ovary, lung, and lymph glands. In the latter tissues the bony deposit is closely associated with the calcareous masses arising in advanced tuberculosis. WOOLLEY (*Jour. Lab. and Clin. Med.*, 1916, i, 502) observed heteroplastic bone in the adrenal with chronic tuberculosis. The specimen was obtained from a man, aged forty-two years, suffering from widespread tuberculosis which had also attacked the adrenal. The old lesion was situated in the medulla while more recent tubercles were present in the cortex. The bony mass in the medulla was well developed and contained a myeloid tissue within which there were several miliary tubercles. The author believed that the bone had developed in association with a chronic tuberculous focus about which a secondary metaplasia of the connective tissue was stimulated by the infectious necrosis. The presence of bone in the adrenal is quite unusual but the manner of its development is probably similar to that observed in other tuberculous areas.

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